

Each year governments collect huge amount of geographic data; however, some data collection activities are redundant and, other cases, situations occur where data cannot be shared. What are the alternatives? What trends are occurring in GIS and what are the most promising developments? How are governments using GIS applications to improve service delivery?

## The United States Department of Housing & Urban Development's Community 2020™ Software – Geographic Information System (GIS).

HUD's new GIS software demonstrates how an agency can unify its place-based information and make it available to the public in a format that promotes its active use. HUD's Community 2020™ Version 2 includes detailed local project information from virtually all of HUD's programs, for all of the US and its territories.

Introduction. HUD is empowering citizens with unprecedented access to its public information coupled with the best technology for working with it, a fully functional, specially tailored geographic information system (GIS). The introduction of new technology to HUD operations is a key element of Secretary Cuomo's HUD 2020 Management Reform Plan. Community 2020 software builds on HUD's Consolidated Planning initiative that was a recipient of the Ford Foundation and Harvard University's Kennedy School Innovations in American Government Award in 1996. HUD's Community 2020 TM software, offered as a community planning tool, has a combination of data and computer mapping innovations that sets new standards for information analysis and information sharing. It creates an entirely new potential for citizen participation. Designed in partnership with Caliper Corporation, Community 2020 is an amplified, full-blown version of Caliper Corporation's Maptitude® (3.0) GIS software product, with added data sets and geography tailored to accommodate neighborhood- and city-scale analysis. Added features accommodate the review of large data sets.

**Benefits.** One of the primary benefits of Community 2020 is the improved ability for communities to make strategic decisions based on reliable data that the software provides. And by opening up the local planning process to community input, it increases the effectiveness of the execution of HUD programs.

**What is Included.** HUD's software package includes a program/data CD containing Community 2020 HUD Community Planning Software Version 2.0, plus geographic, demographic and HUD program data for one of four regions of the United States. Users can install and run Community 2020 from this single program/data CD.

- **Geographic data** include street-level geography, states, counties, block groups, Congressional districts, cities, ZIP Codes, and U.S. Streets plus other cartographic data sets.
- **Demographic data** include over 600 variables from the 1990 Census of Population and Housing for all levels of census geography from states to block groups. Demographic estimates for 1997 and demographic projections for 2002 and 2007 are provided for a selected set of variables. HUD has included additional demographics and special HUD data tabulations in response to requests from users.
- HUD program data describe community planning entitlement projects and competitive
  projects, Empowerment Zones & Enterprise Communities (EZ/EC) activities,
  public housing developments, FHA single- and multi- family housing, and more.
  Individual program data sets are provided for one or more years from 1992 to the
  present. HUD data updates will be available for downloading from the HUD Home
  Page on the World Wide Web.

- **Two Maptitude program/data CDs** are included as well, to provide geography for the US and the world.
- **Support** for the software includes two easy-to-understand user manuals and a Maptitude tutorial that helps users through each step of installation, map making and data access. Two Help menus in the software are extensive, clear and easy to research.
- A Map Library feature enables novice users to make over 100 multi-layered maps for any
  location they choose and introduces them to the power of Geographic Information Systems
  (GIS) in the process. The Map Library enables organizations to customize Community 2020 to
  meet their organization's special needs with the addition of their own data, calculations and
  map styles.
- The HUD Query Builder gives users a point-and-click tool for detailing HUD's activities for the geographic area, program, activity type and year of the user's choice. With the software tools the user can query the data for a neighborhood, or any other selected area and see data on projects, housing and activities in that area, along with details on what organization received the funding, the contact numbers, funding amounts, and details about progress toward stated benchmarks.

**Data Analysis and Display**. Users can develop profiles of their community as a whole, and see the many demographic characteristics of the individuals and households that make up their community. Organizations can find out the status of projects in their area, what is proposed, and how much money has been invested in their area compared to others. Communities can see the impact of HUD funding and activity in their area and can plan, track and measure performance. Community organizations can also add their own data records to the maps. For example, an organization can match pre-1940 housing, low-income families, and preschool children (all in the software) with local housing code violation data in order to target additional resources to children at risk for lead poisoning. EPA's hazards data combined with census demographics can identify specific populations at risk for exposure. Organizations can base their interventions on the specific characteristics of the groups at risk, and display locations for proposed activities. Community 2020 can import map data from many other formats.

**Spatial Analysis.** Using Community 2020's advanced spatial analysis tools, daycare providers can locate potential sites for daycare centers, according to need. A Meals on Wheels organization, for example, can plan the best routes for volunteer drivers from food preparation facilities to the customers they serve. Social service providers can define their service areas' boundaries, or identify and evaluate potential facility sites for new service centers. The regular capabilities of Maptitude, along with the special capabilities of Community 2020, create a powerful tool for visualizing and exploring data on maps and forms.

**Additional resources.** The Community 2020 Help Desk at 1-800-998-9999 is available to help with orders and any problems. A Discussion Forum, training locations and other information are accessible from the HUD Home Page. HUD will offer training to Community 2020 users at various locations in 1998.

**Users:** Citizens organizations, universities and colleges, state and local governments and citizens are purchasing the software. HUD supplied Community 2020 to over 1000 local and state jurisdictions engaged in consolidated planning, to Housing Authorities and to HUD's public trust officers. It is currently available to 1100 field and headquarters staff. Modified versions are placed in kiosks at the HUD Neighborhood Storefronts, and on the HUD Home Page. Currently a number of other Federal agencies have added the power of Community 2020 to their other management software.

**High quality, Low Cost:** Community 2020's Basic Package costs \$249 and contains HUD data for one quadrant of the U.S. The Deluxe Package, \$299, contains HUD data for all four quadrants of the U.S.

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